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ABSTRACT

The project had three objectives: (1) to examine from a multi-disciplinary perspective the theoretical and operational meanings of the concept occupation, to develop a conceptualization which could synthesize the major emphases extant in several disciplines and to develop reliable measures of occupational characteristics consistent with the new conceptualization and practically usable with common occupational classification systems; (2) to provide support for the continuation of field work and data preparation for the follow-up study of men and women first interviewed by James Coleman in 1957 for his study, "The Adolescent Society," to initiate new field work to conduct telephone interviews with the subjects of the Coleman study who had not previously responded to mailed questionnaires, to develop machine-readable life history portfolios containing information about life experiences which had occurred since the initial data collection, and to combine the newly collected data with data collected prior to the grant for this project, thus completing all data collection procedures; and (3) to analyze the resulting matched-merged longitudinal data file and synthesize findings pertaining to long-term consequences of adolescent social systems within the tradition initiated by Coleman. (Author/RC)

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BUREAU OF SOCIAL SCIENCE RESEARCH, INC.

WASHINGTON, D. C.

EXECUTIVE SUMMARY

FIFTEEN YEARS AFTER HIGH SCHOOL: THE IMPACT OF THE ADOLESCENT SOCIAL SYSTEM ON SUBSEQUENT OCCUPATIONAL ACHIEVEMENT

By

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FIFTEEN YEARS AFTER HIGH SCHOOL: THE IMPACT OF THE ADOLESCENT SOCIAL SYSTEM ON SUBSEQUENT OCCUPATIONAL ACHIEVEMENT

Aims of Project

While the title of the grant belies the multiplicity of aims of the project, there were three:

1. to examine from a multi-disciplinary perspective the theoretical and operational meanings of the concept occupation, to develop a conceptualization which could synthesize the major emphases extant in several academic disciplines and to develop reliable measures of occupational characteristics consistent with the new conceptualization and practically useable with common occupational classification systems. This aim was successfully met with no change in the direction of the original aims. A major report has been issued, Occupations: Meanings and Measures. As a result of this preliminary inquiry into the meanings of occupational experiences and as a result of the measures of occupational characteristics developed, a variety of dissertation research projects, as well as other sociological studies have integrated these products into their investigations. Should NIE wish to follow up on the practical applications yielded by this phase of the research, a list of the scientists involved can be furnished.

A review of a broad-ranging body of literature on the subject of occupational achievement indicated that essentially the same phenomenon--man and his work--were approached in many different ways depending on the disciplinary affiliation of the investigator. For the career psychologist, the type of work was used to study vocational

preferences and the fit between a person and the routines of his job. For the economist, the training required by certain jobs and the income it provided were those occupational characteristics considered most salient. Among sociologists, the social standing of the occupation, or its prestige, was that aspect of work defined as occupational achievement. Within each of these three disciplinary perspectives, substantial effort has been expended on the development of theoretical explanations linking various antecedent variables with the specific occupational outcome and on the measurement of appropriate outcome measures.

In order to broaden the scope of inquiry into occupational behavior, I sought to develop a conceptualization that would synthesize all the predominant theoretical concerns related to occupation into a single, integrated form. Such an integrated conception of occupation thus would permit the more narrow investigations derived from discipline-bound theories, but would also enable broader investigations into the relations among and between discipline-bound theories. Studies of a multidisciplinary nature have been lacking due to the absence of a theoretical paradigm that weaves several disciplinary concerns together and to the absence of consistent and reliable measures of diverse occupational characteristics.

The conceptualization developed was called the 3R model of occupations. The 3R model specifies that an occupation has meaning on three dimenstions: Routines, Requisites, and Rewards. Thus, every occupation has a set of routines, or a description of the tasks done on the job, a set of requisites, requirements for dealing with the task successfully, and a set of rewards, socially valued objects received by

a worker in exchange for performing the task and/or having met the requisites. One of the first new research problems generated by this conception concerns the interrelation between the three dimensions. Others include a broadened conception of occupational aspiration or motivation of work which can be now viewed as a desire for a certain type of work, for achieving a certain level of the requisites, or for achieving a certain level of rewards. With some limited data, we demonstrated that these three dimensions were related, that is, certain types of work were associated with higher levels of training requirements with higher levels of income and prestige.

Any conceptualization is only useful in so far as it leads to unexplored areas for inquiry and yields appropriate operational measures. The bulk of our research was devoted to the development of measures of occupational routines, requisites and rewards. The measures we developed have been integrated with the 1970 Census occupational classification and can be used with any occupational data set classified according to the Census system. The availability of these measures should spawn new kinds of investigations and the development of more broadly conceived occupational research designs.

2. The remaining aims of our project were to provide support for the continuation of field work and data preparation for the follow-up study of men and women first interviewed by James Coleman in 1957 for his study, The Adolescent Society: to initiate new field work to conduct telephone interviews with men and women from the Adolescent Society Follow-up study who had not responded previously to mailed questionnaires, to develop machine-readable life history "portfolios" containing information

about life experiences which had occurred since the initial data collection in 1957; and to combine the newly collected data with data collected prior to this grant, thus completing all data collection procedures.

3. To analyze the resulting matched-merged longitudinal data file and synthesize findings pertaining to long-term consequences of adolescent social systems within the tradition initiated by Coleman in The Adolescent Society.

Goal two was met within the time and budget frame of the grant. However, the final goal of providing a thorough analysis of the newly collected data had not been met at the termination of the grant period. Here is a final review of problems encountered that led to deviations from the original time schedule.

With initial funding from Coleman's Social Accounts Program at Johns Hopkins University, part of the fieldwork was completed prior to the initiation of this grant. Of the initial 9000 boys and girls, current addresses were obtained for some 7200, and three mailings of the questionnaire sent. Approximately 4200 completed questionnaires were returned, and a small portion of these coded. Under the NIE grant, nonrespondents were to be interviewed by telephone, and all the data coded, edited, and cleaned.

By October 1974, all data were to have been collected, coded, and cleaned. Since Coleman's respondents all lived in Illinois in 1957, it was assumed that most of the fieldwork needed to track down respondents and obtain information would have to be done in Illinois. Initially the additional data collection was proposed to be sub-contracted to another survey research organization located in Illinois. Two were contacted, The Survey Center at University of Illinois and the National Opinion Research Center at the University of Chicago. SRC at Illinois refused

to accept the sub-contract due to the unusual nature of the data and interviews to be conducted (see page 8 for an explanation of the nature of the data collected). NORC felt that the initial goal of completing 2,5000 - 3,000 interviews would cost $45,000; only $30,000 had been budgeting for the data collection. After consultation with the project officer, I decided against sub-contracting and conducted set up and personnaly submitted a BSSR field staff operation. The interviewing went well, with 2,500 interviews completed at the approximate cost of $10 each, including all direct and indirect costs. The import of this change, however, was to delay my own work on the first report, Occupations: Meanings and Measures and to delay the completion of coding of data by some 3 or 4 months. (Note the interviewers were trained as coders, and little coding of data was completed during the data collection effort.)

The cleaning and edition of a very complex data set did not commence until mid summer, 1975, long after preliminary analysis was to have been completed. Also at that time I decided to alter the original scheme of analyzing the men's and women's data separately, chossing instead at analyze all the data simultaneously, affording a more thorough anaysis of sex differences in post high school outcomes.

In April, 1975, the Bureau formally advised NIE of the impracticability of completing the analysis of the data themselves in the time remaining between July, 1975 and January 1976. A formal request for additional funding and a time extension was made. The project officer advised waiting until fall 1975 for final decisions concerning the request for additional funding and time. In September, an oral report from the project officer indicated that additional funds were not available. My decision at this point was to continue cleaning and organizing the data files, such that at least a well-documented and high-quality data set would be produced by the end of the grant period.

The only alternative decision could have been to have prepared a cursory and brief report covering highlights of the data.

An additional report was prepared during these final months documenting all the original planning and field work conducted from 1972 through 1975. This report, The History and Methodology of the Adolescent Society Follow-up Study, is submitted as the final report for the project. This report, with Occupations: Meanings and Measures (some 500 pages), constitute the specific deliverables for this project.

I am now seeking additional funding to enable me to complete the data analysis and report writing.

Research Methodology

Since the grant supported two different kinds of research, the exploration of occupational meanings and measures, and the continuation of The Adolescent Society Follow-up Study, the methods employed need to be examined separately for the two phases.

Phase I: Occupations: Meanings and Measures

Following a review of the literature and a theoretic synthesis of existing conceptualizations of the term occupation, the research objective formulated required the development of a variety of occupational characteristics, all keyed and evaluated for the 1970 Census occupational classification. Five of these characteristics were taken from the Dictionary of Occupational Titles, the degree the occupation requires working with Data, People, Things; the General Educational Development required (GED); and the Specific Vocational Preparation required (SVP). To estimate these five characteristics for the 1970 Census occupations, a Current Population Survey data file from April

1971 was used. The sample consisted of 60,441 persons selected from the multi-state probability sample drawn regularly by the Bureau of the Census for each monthly CPS.

These estimated scores constitute an important product of the research, a product I will use in the analysis of data from the follow-up study and other researchers are now beginning to use in their works as well. The development of prestige and self-direction scores for occupations followed the analytic strategy originally developed by O.D. Duncan in Occupations and Social Status (Free Press, 1961). Briefly this strategy consists of obtaining from sample survey data people's actual perceptions of either the prestige of an occupation or the self-direction afforded by it, determining the best predictors (from published data on occupation) of these opinions, and using the prediction equation to estimate scores of the relevant variable for occupations not sampled.

Each person's job was coded with a highly detailed DOT code and a more aggregated Census code. All jobs were then weighted and aggregated by the Census occupation, and resulting estimates computed. The methodology here consisted of data analysis based on existing data sources, and while the time and expense were large, due to the comprehensive scope of the estimation procedures, the analytical strategies were relatively simple.

Phase II: The Adolescent Society Follow-Up Study

Basically, the methodology for the follow-up study consisted of locating some 10,000 men and women from Illinois high schools in 1958 and agthering new data about their significant life experiences in the 15 years following their high school experience. The full documentation

of procedures used in locating these persons and gathering new data is covered in the final report, The History and Methodology of the Adolescent Society Follow-up Study.

The sample itself was defined for us, i.e., all those men and women who had participated in Coleman's initial study in 1957-1958. Our job was to find them and re-interview them. To locate the whereabouts of the sample of 9,033, we used many techniques--contacting parents from old addresses from 1957, contacting known friends and relatives, and using community-wide canvassing. Some 80 percent of the initial sample was located or known to be deceased or incarcerated. Two strategies were used to collect data, a mailed questionnaire and telephone interviewing. Approximately 4,200 persons responded to the mailed questionnaire and approximately 2,500 nonrespondents who had been located were contacted and interviewed by telephone.

The bulk of the new data consisted of demographic events, recorded in a life-history format. Thus, for migration, education, occupations, and family experiences, all events since high school were recorded within a calendar time frame. That is, when, where, and how long a person lived in a certain town, attended a certain school, or held a certain job were recorded.

These data are much richer than usual social science data, and permit more flexibility in the analysis. Two other investigators have collected similar data through face-to-face interviewing but we developed the techniques for collecting such data through less expensive means, a mailed questionnaire and the telephone interview.

Since these data have not yet been analyzed, the methods that can be employed in dealing with such life-history data have not been explored.

Significant Difficulties in the Research

The most significant difficulty encountered in the research prior to NIE funding resided in the logistics of developing a records-control system that could facilitate the tracting of 9,000 persons whose last known address was fifteen years old. With the current grant we developed, a real-time computerized system for telephone interviewing support. Some valuable computer techniques in the management of day-to-day fieldwork operations were generated, and these are discussed in the History report. Considerable cost savings in the conduct of complex surveys can be realized by the more imaginative use of computers by researchers. Also, improved quality and quality control procedures can be attained.

Other significant difficulties arose with the collection of life history data via telephone interviews and the coding and classification of these data for computer analysis. Since these efforts were exploratory in nature, few standards for evaluation exist to decide how difficult these tasks actually were or how well we solved the problems.

Results of the Research

Phase I:--The scales developed in this report will enable a richer and more meaningful analysis of occupational behavior of men and women than has been previously possible. Major concerns from the three disciplines of career psychology, sociology, and economics can be approached in an integrated fashion posing and answering new questions about occupational behavior and experiences.

The significance for the discipline of sociology as well as for anyone who uses occupational data is widespresd. The tools developed in this report can be used by any data analyst who has occupational data coded in accordance with either the 1960 or the 1970 Census classification. The scale are based on a sound methodology and on the most reliable data pertaining to the nation's labor force.

Phase II:--Since the analysis of the follow-up data is not complete, no substantive results can be reported at this time. However, several important contributions to methodology and fieldwork practice have been made, and may be considered results. First, we demonstrated the practicability of gathering rich, life-history data via mail and telephone interviews. Second, the use of supplementary data files to provide a researcher with information about certain kinds of variables was explored, and we simplified and shortened the information solicited from respondents themselves. Examples include size of town in which a person resides, characteristics of schools he attended, and characteristics of jobs he has held. By designing a code classification consistent with those used by government agencies which routinely collect data on such topics as towns and cities, schools, and occupation, a whole wealth of additional data can be used by the researchers. I hope we underscored the advantages gained by knowing what kinds of data are routinely collected and by designing questionnaires and coding classifications which could facilitate the use of existing data archives. Incidentally, such supplementary data can be used to provide the researcher with information a respondent could not be expected to furnish reliably, i.e., the average SAT score of his college classmates. When more researchers start standardizing the methods and procedures employed in field work, both the general value of their own data set to others and the researcher's own flexibility in conducting his analysis should be enhanced.

Further Research

Phase I: The results of the research undertaken in Occupations: Meanings and Measures should point the way to more multi-disciplinary studies into the dynamics of occupational achievement and thereby improve our understanding of career development processes. I plan to continue my own explorations concerning the nature of the occupational experience through the analysis of the occupational data collected in the Adolescent Society Follow-up Study, and by initiating additional work with the Census occupational classification and data.

Phase II: I simply plan to complete the analysis of the data this particular grant helped to collect.